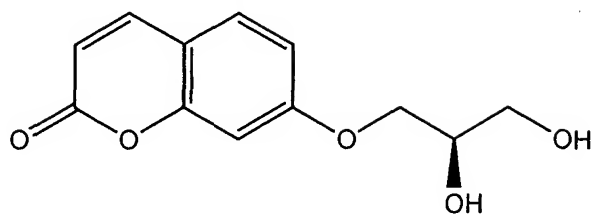


CLAIMS

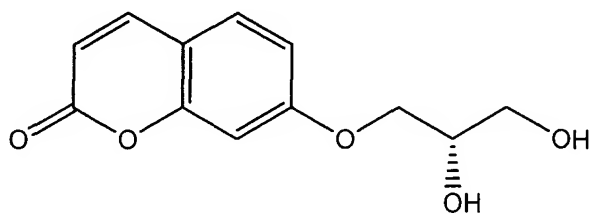
We claim:

1. A compound having the formula:



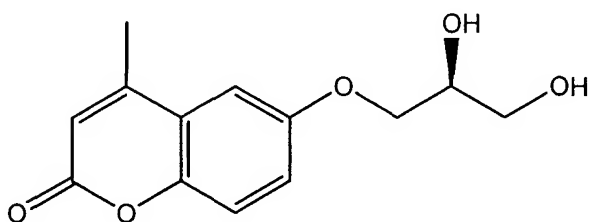
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2. A compound having the formula:

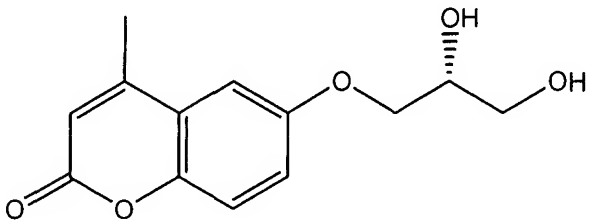


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3. A compound having the formula:

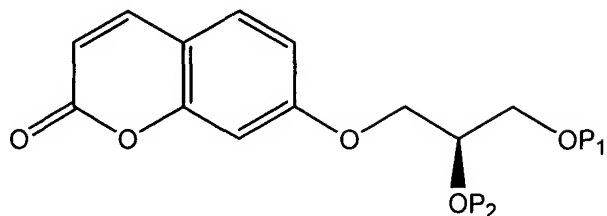


4. A compound having the formula:



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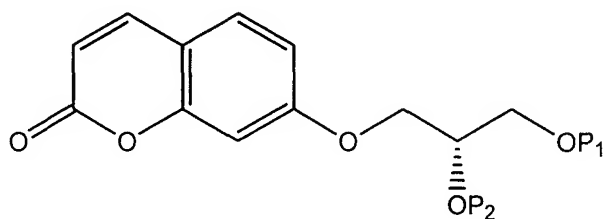
5. A compound having the formula:



- 5 wherein P_1 and P_2 , independently, are protecting groups.

6. The compound of claim 5, wherein P_1 is a trityl.
7. The compound of claim 5, wherein P_2 is a phosphoramidite.
8. The compound of claim 5, wherein P_1 is a trityl and P_2 is a phosphoramidite.
9. A compound having the formula:

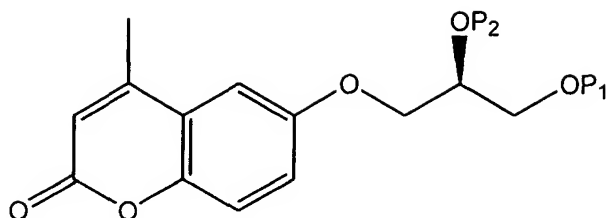
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wherein P_1 and P_2 , independently, are protecting groups.

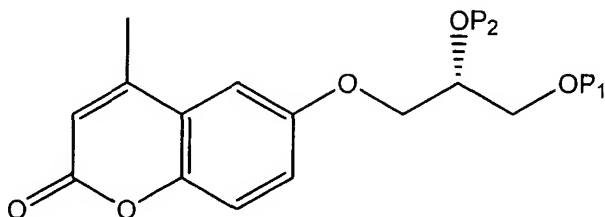
- 15 10. The compound of claim 9, wherein P_1 is a trityl.
11. The compound of claim 9, wherein P_2 is a phosphoramidite.
12. The compound of claim 9, wherein P_1 is a trityl and P_2 is a phosphoramidite.

13. A compound having the formula:



5 wherein P_1 and P_2 , independently, are protecting groups.

14. The compound of claim 13, wherein P_1 is a trityl.
15. The compound of claim 13, wherein P_2 is a phosphoramidite.
16. The compound of claim 13, wherein P_1 is a trityl and P_2 is a phosphoramidite.
- 10 17. A compound having the formula:

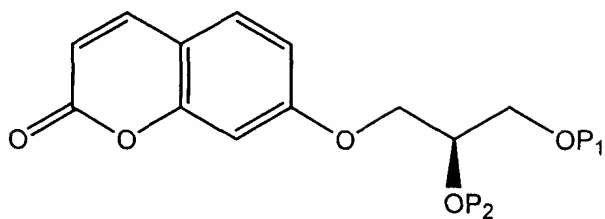


wherein P_1 and P_2 , independently, are protecting groups.

15

18. The compound of claim 17, wherein P_1 is a trityl.
19. The compound of claim 17, wherein P_2 is a phosphoramidite.
20. The compound of claim 17, wherein P_1 is a trityl and P_2 is a phosphoramidite.

21. A compound having the formula:



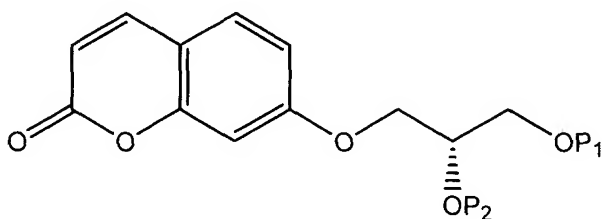
5 wherein one of P_1 and P_2 is a protecting group and the other is a hydrogen atom.

22. The compound of claim 21, wherein P_1 is a trityl.

23. The compound of claim 21, wherein P_2 is a phosphoramidite.

24. A compound having the formula:

10

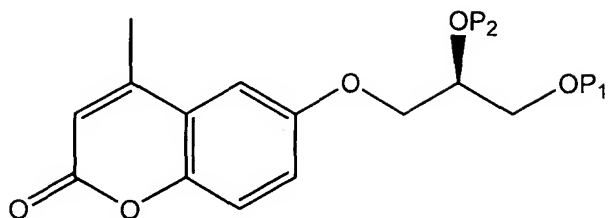


wherein one of P_1 and P_2 is a protecting group and the other is a hydrogen atom.

15 25. The compound of claim 24, wherein P_1 is a trityl.

26. The compound of claim 24, wherein P_2 is a phosphoramidite.

27. A compound having the formula:



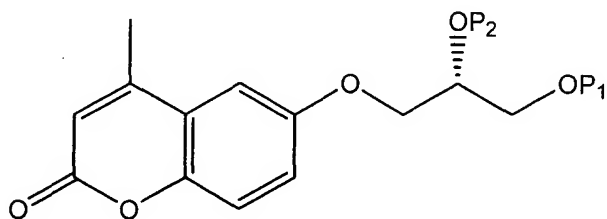
5 wherein one of P_1 and P_2 , is a protecting group and the other is a hydrogen atom.

28. The compound of claim 27, wherein P_1 is a trityl.

29. The compound of claim 27, wherein P_2 is a phosphoramidite.

30. A compound having the formula:

10



wherein one of P_1 and P_2 , is a protecting group and the other is a hydrogen atom.

15 31. The compound of claim 30, wherein P_1 is a trityl.

32. The compound of claim 30, wherein P_2 is a phosphoramidite.